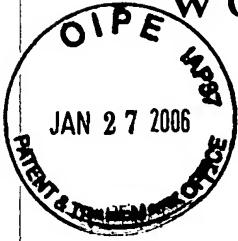


1-30-06  
TAP6 Rec'd PCT/PTO 27 JAN 2006

RICK D. NYDEGGER  
BRENT P. LORIMER  
THOMAS R. VUKSINICK  
LARRY R. LAYCOCK  
JONATHAN W. RICHARDS  
DAVID R. WRIGHT  
JOHN C. STRINGHAM  
JOHN M. GUYNN  
CHARLES L. ROBERTS  
DANA L. TANGREN  
ERIC L. MASCHOFF  
CHARLES J. NEVERKA  
ROBYN L. PHILLIPS  
RICHARD C. GILMORE \*  
STERLING A. BRENNAN  
R. BURNS ISRAELSEN  
DAVID R. TODD  
DAVID B. DELLENBACH  
L. DAVID GRIFFIN  
ADRIAN J. LEE  
FRASER D. ROY  
CARL T. REED

WORKMAN | NYDEGGER

INTELLECTUAL PROPERTY ATTORNEYS



1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UTAH 84111  
TELEPHONE: (801) 533-9800  
FAX: (801) 328-1707  
WEBSITE: HTTP://WWW.WNLAW.COM

EXPRESS MAIL LABEL NO. EV 79901976 US

PATENT APPLICATION  
Docket No: 16056.10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Willi Neumann

Serial No.: 10/551,664 ) Art Unit  
Confirmation No.: Unknown ) Unknown  
Filed: September 30, 2005 )  
For: PROCESS FOR SURFACE, ACTIVATION )  
AND/OR DEVULCANIZATION OF )  
SULFUR-VULCANIZED RUBBER )  
PARTICLES )



R. PARRISH FREEMAN, JR.  
PETER F. MALEN, JR.  
L. REX SEARS, PH.D.  
WILLIAM R. RICHTER  
ROBERT E. AYCOCK  
JENS C. JENKINS  
MICHAEL B. DODD  
KEVIN W. STINGER  
WILLIAM J. ATHAY  
RYAN D. BENSON  
SARA D. JONES  
TIGE KELLER  
JANNA L. JENSEN  
MATTHEW D. TODD  
J. LAVAR OLDHAM  
MICHAEL J. FRODSHAM  
BRETT A. HANSEN  
BRETT I. JOHNSON  
MATTHEW A. BARLOW  
WESLEY C. ROSANDER  
ANDREW S. HANSEN  
CHAD E. NYDEGGER  
JOSEPH G. PIA  
CLINTON E. DUKE  
RYAN N. FARR  
JAMES B. BELSHE  
KIRK R. HARRIS  
MICHAEL M. BALLARD  
DAVID A. JONES  
SHANE K. JENSEN  
JONATHAN M. BENNS, PH.D.  
SCOTT A. WOODBURY  
JOHN T. GADD  
MARK W. FORD  
AARON M. SMITH

VERNON R. RICE §  
OF COUNSEL

TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

MAIL STOP: AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- Statement of relevance of selected cited references not in the English language which are not translated.
- Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- Form PTO-1449 listing four (4) references submitted for consideration.
- Copies of two (2) of the references listed on the Form PTO-1449.

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

- I.  Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II.  Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
  - Promptness Certification; or
  - Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III.  After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
  - Promptness Certificate;
  - Petition for Consideration; and
  - Check No. in the amount of \$ \_\_\_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).
- IV.  After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
  - Petition to Withdraw from Issue; and
  - Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

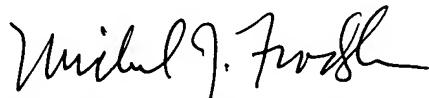
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

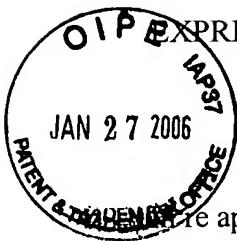
- Any fee required in relation to filing of this letter or any documents transmitted therewith.
- The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).
- The submission fee set forth in 37 C.F.R. § 1.17(p).
- The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 27 day of January 2006.

Respectfully submitted,



MICHAEL J. FRODSHAM  
Attorney for Applicant  
Registration No. 48,699  
Customer No. 022913  
Telephone: (801) 533-9800



EXPRESS MAIL NO. EV 749901976 US

PATENT APPLICATION

Docket No: 16056.10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of )  
Willi Neumann )  
Serial No.: 10/551,664 ) Art Unit  
Confirmation No.: Unknown ) Unknown  
Filed: September 30, 2005 )  
For: PROCESS FOR SURFACE, ACTIVATION )  
AND/OR DEVULCANIZATION OF SULFUR- )  
VULCANIZED RUBBER PARTICLES )  
Examiner: Unassigned )  
Customer No. 022913 )

INFORMATION DISCLOSURE STATEMENT

MAIL STOP: AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed list of references is disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record

believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. § 1.98(c), all English translations within the possession, custody, control or availability of anyone designated in 37 C.F.R. § 1.56(c) of each non-English reference, if any, are also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation

In accordance with 37 C.F.R. § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Microbe Vulcanization of Unvulcanized Rubber:

Method comprises adding sulphur, oxidizing bacteria, or sulphur reducing bacteria to unvulcanized rubbers, storing the mixtures for suitable periods of time, and sterilizing and thus crosslinking the rubbers. The vuncanized rubbers produced have an increased crosslinking density (by the Flory-Rhener's swelling degree measure method) and fine stress-strain curved line.

27  
DATED January 24, 2006.

Respectfully submitted,



MICHAEL J. FRODSHAM  
Attorney for Applicant  
Registration No. 48,699  
Customer No. 022913  
Telephone: (801) 533-9800

Applicant: Willi Neumann  
 Serial No.: 10/551,664 Att'y Docket No.: 16056.10  
 Filing Date: September 30, 2005 Group: Unknown  
 For: PROCESS FOR SURFACE, ACTIVATION AND/OR  
 DEVULCANIZATION OF SULPHUR-VULCANIZED RUBBER  
 PARTICLES



### INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

#### U.S. Patent Documents

Examiner Initial*	Document Number	Issue Date	Name
____ 1	6,217,766	04/17/2001	Stetter et al.
____ 2	6,479,558	11/12/2002	Fliermans

#### Foreign Patent Documents

Examiner Initial*	Document Number	Publication Date	Country or Patent Office
____ 3	402,067	11/21/1933	Italy
____ 4	JP54100441	8/08/1979	Japan

#### Other Documents

(including author, title, pertinent pages, etc.)

Examiner Initial\*

\_\_\_\_ 5 None

---

Examiner: \_\_\_\_\_ Date Considered: \_\_\_\_\_

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

---

Applicant: Willi Neumann  
Serial No.: 10/551,664 Att'y Docket No.: 16056.10  
Filing Date: September 30, 2005 Group: Unknown  
For: PROCESS FOR SURFACE, ACTIVATION AND/OR  
DEVULCANIZATION OF SULPHUR-VULCANIZED RUBBER  
PARTICLES

### References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

KJB0000006246V001.doc

---

Examiner: \_\_\_\_\_ Date Considered: \_\_\_\_\_

---

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

---



EXPRESS MAIL LABEL NO. EV 79901976 US

PATENT APPLICATION

Docket: 16056.10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of )  
Willi Neumann )  
Serial No.: 10/551,664 ) Art Unit  
Confirmation No.: Unknown ) Unknown  
Filed: September 30, 2005 )  
For: PROCESS FOR SURFACE, ACTIVATION AND/OR )  
DEVULCANIZATION OF SULFUR-VULCANIZED )  
RUBBER PARTICLES )

CERTIFICATE OF EXPRESS MAILING

I hereby certify that the following documents are being deposited with the United States Postal Service as Express Mail, postage prepaid, in an envelope addressed to: MAIL STOP: AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27th day of January, 2006:

- Transmittal for Information Disclosure Statement (3 pgs.)
- Information Disclosure Statement (2 pgs.)
- Form PTO-1449 (2 pgs.)
- Copies of 2 references
- Postcard

Respectfully submitted,

Kristine Blust, Legal Assistant for  
MICHAEL J. FRODSHAM  
Attorney for Applicant  
Registration No. 48,699  
Customer No. 022913  
Telephone: (801) 533-9800